

REMARKS

Claims 1, 3, 5, 8, 9, 11-13 and 18 are now in the application. Claims 1, 11 and 12 have been amended to recite “at least one substance selected from the group consisting of air, carbon dioxide, nitrogen, oxygen, methane, ethane, propane, and butane” from claim 2 in place of “a fluid being a gas at a normal temperature and normal pressure”. Claims 1, 11 and 12 have also been amended to recite “of 5 MPa or higher” disclosed at page 16, line 24 to page 17, line 2 of the specification. Claims 1, 11 and 12 have also been amended to that “water is further sealed in the pressure resistant container in the step of air-tightly sealing the adherend together with said at least one substance in the pressure resistant container” from claim 4. In view of the amendments to claims 1, 11 and 12, claims 2, 4, 6, 7, 14-17, 19 and 20 have been cancelled without prejudice or disclaimer. In addition, claim 10 has been cancelled without prejudice or disclaimer. The amendments to the claims do not introduce any new matter.

The rejections of claims 1-20 under 35 USC 112, second paragraph as being indefinite have been overcome by the amendments to the claims. In particular, the claims no longer recite “normal temperature and normal pressure” and “steeply released” and “high pressure state” has been defined as “5 MPa or higher”.

The rejection of claims 1-3, 5-12, 14, 17 and 20 under 35 USC 103(a) as being unpatentable over US Patent 5,501,761 to Evans et al.(hereinafter also referred to as “Evans”). has been rendered moot since claims 1, 11 and 12 have been amended to include recitations from claim 4. Claim 4 was not subject to this rejection.

Claims 4, 15-16, and 18-19 were rejected under 35 USC 103(a) as being unpatentable over US Patent 5,501,761 to Evans et al. in view of the admitted state of the art. The cited art fails to render obvious the present invention.

An important feature of the present invention is keeping the adherend together with a fluid which is a gas at a normal temperature and normal pressure in a high pressure condition and then releasing the pressure. With this method, the adherend can be completely separated without an adhesive deposit or the like. A fluid in the high pressure state, especially a fluid in the supercritical state or subcritical state can readily penetrate the adhesive sticking the adherend. It

is believed that if the pressure is released in the state, the volume of the fluid that penetrates the adhesive as described is changed in the adhesive and following the volume alteration, stress is caused between the adherend and the adhesive and owing to the stress, the separation is carried out.

In the step of sealing the adherend and the fluid which is a gas at a normal temperature and normal pressure in the pressure resistant container, "water" is added into the pressure resistant container. Use of water in combination makes separation of the adherend easier and more reliable. All of the Examples in the present application use "water".

Evans suggests a method for removing a conformal coating from a circuit board. The method comprises the steps of locally thinning the coating, and then subjecting the coated circuit board in a processing chamber to supercritical carbon dioxide. The method of Evans is to dissolve a coating material remaining at the bottom of an incision with a supercritical carbon dioxide (please see column 4, lines 47-58). However, Evans never discloses the use of "water" with a supercritical carbon dioxide.

The Office Action concludes that it would have been obvious to one having ordinary skill in the art at the time the invention was made to seal water in the container along with the fluid, since applicant admits that it was known at the time of invention to physically and chemically remove organic polymer substances adhering to objects using water in a supercritical state under high pressure (spec: p.4, line 34-p.5, line 3). In that part of the description, "Japanese Kokai Publication 2002-343760" is disclosed. However Japanese Kokai Publication 2002-343760 discloses a method for removing organic polymer substances adhering or deposited on objects to be washed by spraying water or a polar solvent. It is quite different from the method described in Evans. (Supercritical carbon dioxide is never sprayed in Evans). Please see the attached machine English translation of Japanese Kokai Publication 2002-343760 at paragraphs [0005] to [0009]. Japanese Kokai Publication 2002-343760 in discussing problems of the prior art clearly teaches away from the method of disassembling a high molecular compound with a solvent formed in a supercritical state, a subcritical state or a liquefied gas state. This is the method of Evans. Thus Japanese Kokai Publication 2002-343760 teaches away from the method of Evans and proposes an alternative method.

Therefore, the skilled artisan would not combine Evans with Japanese Kokai Publication 2002-343760. It is improper to disregard teachings that lead away from the invention in evaluating non-obviousness. All of the teachings in the art must be considered including those that teach away. Please see *In re Mercier* 185 USPQ 774 (CCPA, 1975). Moreover, where, as here, the teachings of the prior art would discourage persons skilled in the art from doing what applicant teaches and claims, the art establishes the “very antithesis of obviousness”. Please see, *In re Rosenberger*, 156 USPQ 24 (CCPA, 1967) and *In re Buehler*, 185 USPQ 781 (CCPA, 1975).

Claim 13 was rejected under 35 USC 103(a) as being unpatentable over US Patent 5,501,761 to Evans et al. in view of US Patent 6,383,647 to Shohi et al. The cited art does not render obvious claim 13. Shohi et al. do not overcome the above discussed deficiencies of Evans et al. Shohi et al were relied upon for a disclosure of heating laminated glass with an interlayer film at a temperature at 150 degrees Celsius, which according to the office action is equivalent to firing the glass and interlayer. Therefore, claim 13 is patentable for at least those reasons as to why claim 12 is patentable.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

In the event the Examiner believes an interview might serve in any way to advance the prosecution of this application, the undersigned is available at the telephone number noted below.

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